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TITLE : ELECTRICALLY INSULATING FILM AND CAPACITOR USING THE SAME

ABSTRACT : PROBLEM TO BE SOLVED: To improve a voltage resistance and to prolong its lifetime with a small size by forming an electrically insulating film of a polymer resin containing a polyolefin resin polymerized by using a metallocene catalyst as a main component, incorporating a specific ratio of an organic compound having a chlorine capturing performance, and setting a surface roughness to a specific value, thereby improving the voltage resistance.

SOLUTION: The electrically insulating film is formed of a polymer resin containing a polyolefin resin polymerized by using a metallocene catalyst, contained with 0.02 to 0.15 wt.% of an organic compound having a chlorine capturing capacity, and set with a surface roughness Ra to 0.03 to 0.30 μm. The metallocene catalyst is a bis-metal compound in which a metal atom is bonded to a cyclopentadiphenyl ring by a strong covalent bond or its derivative. Particularly, a compound of a structure in which a transition metal such as Zr or the like is held by a π-electron unsaturated cyclic compound as a metallic atom is excellent. Generally, it is used as a combination of an assistant medium of methylalmoxane or the like. As the compound having the chlorine capturing performance, an epoxy compound is particularly preferable.